



DEPARTMENT OF TRANSPORTATION
HAZARDOUS MATERIALS REGULATIONS BOARD
WASHINGTON, D.C. 20590

36596

[49 CFR Parts 172, 173, 174, 177, 178]

[Docket No. HM-121; Notice No. 74-12]

TRANSPORTATION OF HAZARDOUS
MATERIALS

Use of Certain Packagings

The Hazardous Materials Regulations Board ("the Board") is considering amendments to many unrelated sections of the Department of Transportation's Hazardous Materials Regulations. These proposals include changes to regulations covering certain Class A explosives, Class B explosives, flammable liquids, flammable solids, oxidizing materials, corrosive materials, compressed gases, Class A poisons, and Class B poisons. Changes are also proposed to several steel drum specifications, to the DOT-2S and DOT-2SL inside polyethylene packaging specifications, to the DOT-12B fiberboard box specification, and to the DOT-44C multi-wall paper bag specification.

All these proposals except certain changes to §§ 172.5, 173.24, 173.134, 173.302, 174.532, 177.837, and the steel drum specification changes are based on petitions from special permit holders who have reported to the Board satisfactory shipping experience while shipping under the special permit authorizations. Thirty-eight special permits would be affected by this rule making. These involve the use of packagings not presently authorized for the transportation of hazardous materials which, in the Board's belief, possess an adequate degree of safety in the transportation of hazardous materials.

In § 172.5 it is proposed to change the rail express package quantity limitation for motor fuel antiknock compound and tetraethyl lead from 55 gallons to 65 gallons. The petitioner requests this change because DOT specification 5 steel drums of the 65-gallon size (55 imperial gallons) have been used via surface transportation modes other than by rail express for many years without incident. The Board considers this petition to be reasonable and justifiable in the interest of facilitation of commerce in view of the standard package sizes used by some other countries.

In § 173.24(c)(2), it is proposed to change the minimum dimensions referenced for 16 and 20-gauge steel. This proposal is based on a petition from the Steel Shipping Container Institute citing the fact that the American Iron & Steel Institute, considered the authority on these

dimensions, has changed the manufacturers' tolerances to reduce permissible deviations in the thickness of various gauges of steel to reflect the greater accuracy of today's steel rolling operations. Since the changes result in thicker material being required by the gauge referenced, the Board has no objection to this petition. In addition, the Board is proposing to delete the numerous repetitive references to gauge dimensions in each steel drum and overpack specification since no safety purpose is served by the repetition and it presents a potential for unintentional error. It is simpler to have only one reference source for dimensions. Since the tables are proposed to be deleted in each drum specification, the Board proposes to add a note to the table in § 173.24 concerning measurement of steel in the drum, which note now appears with each repeated table in each specification.

In §§ 173.134, 174.532, and 177.837, the Board has been petitioned to provide for use of a DOT specification 33A polystyrene case in addition to the non-DOT specification box now authorized as an overpack for cylinders. Since this polystyrene case is considered an adequate packaging for containing glass bottles of liquid hazardous materials, the Board considers the packaging adequate for overpacking cylinders.

In § 173.302(a)(4), on its own motion, the Board is proposing to prohibit the use of DOT specification 39 aluminum cylinders for oxygen. This is based on the doubts the Board has concerning the safety in transportation of oxygen in aluminum vessels. This concern was set forth in Docket No. HM-115; Notice No. 74-3 (39 FR 7950).

In accordance with the objectives of the Board regarding delegations of authority, this proposal also covers removal of discretionary delegations of authority to the Bureau of Explosives in §§ 173.93(e)(4), 173.134(a), 178.35-2, and 178.35a 1. In place of requiring that properties of the polyethylene described in §§ 178.35 and 178.35a be measured by a test method approved by the Bureau of Explosives, the test methods set forth in Appendix B to Part 178, Specifications For Plastics would apply.

The Board has been petitioned to change the I-bar rolling hoop dimensions on DOT specification 5 and 6 series drums of 55-gallon capacity. The petitioners state that the request is made

to insure the continuing availability of these drums in a market that now takes very small quantities. One petitioner describes the reasoning behind the request as follows:

Presently the principal items produced in those specifications calling for I-bar rolling hoops are 30 and 55 gallon cylindrical drums in specs 5 and 5C. Smaller quantities are made in specs 5A, 5K and 5M and some 15 gallon drums are produced. The total number of I-bar drums made annually is estimated to be less than 20,000. Except for the 55 gallon size in the specifications listed in the first paragraph of this letter the I-bar specified is a 3/4" X 1 1/4" section. The 55's require an I-bar of 1" X 1 1/4" section.

I-bars of the two sizes specified must each be ordered directly from a steel mill in 50 ton minimum quantities. They are not available through steel warehouses. Fifty tons of either size bar represents approximately a two year inventory to us, an obviously costly condition and one which discourages continued production. Consolidation of the requirements into a single I-bar section would alleviate the problem.

The reason for stipulating the smaller 3/4" X 1 1/4" I-bar as the preferred section is based on production difficulties rather than cost. With existing manufacturing equipment and methods it is not possible to roll the heavier bar into the tighter circle needed for the 15 and 30 gallon sizes while the lighter bar can be made in all three diameters.

The petitioner stated that under the present steel shortage condition there is

increasing reluctance on the part of steel mills to accept orders for as little as 50 tons for special sections of this type. The ability to consolidate into one section will enable them to order larger quantities at one time and insure a continued supply of specification drums.

One petitioner submitted laboratory test reports showing that the proposed reduced dimension I-bar would withstand a 6500 pound load before deflecting more than 1/4-inch. The proposed bar also has sufficient height to protect body fittings from contact with adjacent surfaces. From a safety viewpoint, the Board considers that the 3/4-inch by 1 1/4-inch I-bar provides adequate protection and the public interest would be served by reducing the dimensions as proposed.

In consideration of the foregoing, the Hazardous Materials Regulations Board proposes to amend 49 CFR Parts 172, 173, 174, 177, and 178 as follows:

PART 172—LIST OF HAZARDOUS MATERIALS CONTAINING THE SHIPPING NAME OR DESCRIPTION OF ALL MATERIALS SUBJECT TO PARTS 170-189 OF THIS SUBCHAPTER

In § 172.5 paragraph (a), the List of hazardous materials would be amended as follows:

§ 172.5 List of hazardous materials. (a) * * *

Article	Classed as	Exemptions and packing (see sec.)	Label required if not exempt	Maximum quantity in 1 outside container by rail express
(add)				
Methyl bromide, pressurized	Pois. B.....	No exemption, 173.353.....	Pois.....	300 pounds.
Methyl bromide and chloropicrin mixture, pressurized containing not more than 2 percent by weight chloropicrin.	Pois. B.....	No exemption, 173.353.....	Pois.....	300 pounds.
Motor fuel antiknock compound.....	Pois. B.....	No exemption, 173.354.....	Pois.....	65 gallons.
Tetraethyl lead.....	Pois. B.....	No exemption, 173.354.....	Pois.....	65 gallons.
Vanadium oxytrichloride and titanium tetrachloride mixture.....	Cor.....	No exemption, 173.245, 173.245a.	Corrosive.....	1 quart.
(change)				
Nitrogen tetroxide-nitric oxide mixture (containing up to 39.5 percent by weight nitric oxide).	Pois. A.....	No exemption, 173.338.....	Pois. gas.....	Not accepted.
Vinyl methyl ether.....	F. C. G.....	173.306, 173.304, 173.314.....	F. G.....	20 pounds.
(delete)				
Methyl bromide and nonflammable, nonliquefied, compressed gas mixtures, liquid.	Pois.....	No exemption, 173.353.....	Pois.....	300 pounds.

PART 173—SHIPPERS

1. In Part 173 Table of Contents, §§ 173.217, 173.245a, 173.247, 173.338, 173.353, 173.359, and 173.377 would be amended to read as follows:

Sec.	
173.217	Calcium hypochlorite mixtures, dry; Lithium hypochlorite compounds, dry; mono-(trichloro) tetra-(monopotassium dichloro)-penta-s-triazinetriene, dry; Potassium dichloro-s-triazinetriene, dry; Sodium dichloro-s-triazinetriene, dry; Trichloro-s-triazinetriene, dry.
173.245a	Corrosive liquids shipped in bulk.
173.247	Acetyl bromide; Acetyl chloride; Acetyl bromide; Acetyl chloride; Acetyl iodide; Antimony penta-chloride; Benzoyl chloride; Boron trifluoride-acetic acid complex; Chromyl chloride; Dichloroacetyl

173.338	Nitrogen tetroxide-nitric oxide mixture containing up to 39.5 percent by weight nitric oxide.
173.353	Methyl bromide, liquid (bromo-methane); Mixtures of methyl bromide and ethylene dibromide, liquid; Mixtures of methyl bromide and chloropicrin, liquid; Methyl bromide, pressurized; Methyl bromide and chloropicrin mixture (containing not in excess of 2 percent chloropicrin), pressurized.
173.359	Hexaethyl tetraphosphate mixtures, liquid; Methyl parathion mixtures, liquid; Organic phosphate compound mixtures, n.o.s., liq-

uid; Parathion mixture; Tetraethyl dithio pyro mixtures, liquid; Tetraethyl phosphate mixtures, liq
173.377 Hexaethyl tetraphosphate dry; Methyl parathion dry; Organic phosphate mixtures, n.o.s., dry; mixtures, dry; Tetraethyl pyrophosphate mixture; Tetraethyl pyrophosphate mixtures, dry.

2. In § 173.24 paragraph (c) Table would be amended and f would be added as follows:

§ 173.24 Standard requirements packages.

(c) * * *
(2) * * *

Gauge No.	Nominal thickness (inch) ¹	M
(change)		
16.....	0.0598	
20.....	.0359	

¹ On steel drums, thickness must be measured point on the sheet not less than 3/4 inch from

3. In § 173.28, the introduction of paragraph (m) would be read as follows:

§ 173.28 Reuse of containers.

(m) Specifications 17C, 17E, steel drums (§§ 173.115, 178.11 of this subchapter) from which have been removed, may be prescribed in this Part as packaging of flammable liquids, ble solids, oxidizing materials covered by § 173.370, radioactive materials, and corrosive liquids covered by §§ 173.249 and 173.249a, only if following requirements, in addition other requirements of this section complied with prior to each reuse.

4. In § 173.65, paragraph (a) be revised to read as follows:

§ 173.65 High explosives with explosive ingredient nor rate.

(a) * * *

(5) When these explosives over 5 percent moisture, boxes inside securely closed polyethylene having a minimum wall thickness 0.006-inch, or must incorporate cation 2L (§ 178.30 of this subchapter). Polyethylene is authorized for materials that will not peract with, or cause decomposition plastic.

5. In § 173.93, paragraph (a) be added; paragraph (e) (4) would be added as follows:

73.93 Propellant explosives (solid) for cannon, small arms, rockets, guided missiles, or other devices, and propellant explosives (liquid).

(a) * * *

(1) Specification 12H, 23G, or 23H (§§ 178.209, 178.218, 178.219 of this subchapter) fiberboard boxes with inside securely closed polyethylene bags, having a minimum wall thickness of 0.006-inch.

(c) * * *

(4) [Deleted]

6. In § 173.119, paragraph (a) (23) would be revised to read as follows:

§ 173.119 Flammable liquids not specifically provided for.

(a) * * *

(23) Specification 12A (§ 178.210 of this subchapter). Fiberboard box, with inside glass bottles or specification 2E (§ 178.24a of this subchapter) polyethylene bottles of not over 1 gallon capacity each. Polyethylene bottles are authorized only for materials that will not react with or cause decomposition of the plastic. Not more than four inside bottles exceeding 5 pints capacity each may be packed in a package. Shipper must have established that the completed package meets the test requirements prescribed by 178.210-10 of this subchapter.

7. In § 173.134, the introductory text of paragraph (a) and paragraph (a) (1) would be revised; a Note would be added following paragraph (a) (1) to read as follows:

§ 173.134 Pyroforic liquids, n.o.s.

(a) Pyroforic liquids, n.o.s., must be packed in specification packaging as follows:

(1) Cylinders as prescribed for any compressed gas except acetylene, and having a minimum design pressure of 175 pounds per square inch. Cylinders with valves must be equipped with steel valve protection caps or collars, or must be packed in a strong wooden box or DOT-33A (§ 178.150 of this subchapter) polystyrene case and secured therein to protect all valves. Unless packed in a box or case, any safety relief device must be in the vapor space of any loaded cylinder. (See § 174.532(b) (3) 177.837(d) of this subchapter.)

Note: For purposes of this section, where § 178.150 of this subchapter (specification DOT-33A) specifies bottles, the term "bottles" includes cylinders.

8. In § 173.139, paragraph (a) (4) would be revised to read as follows:

§ 173.139 Ethylene imine, inhibited, and propylene imine, inhibited.

(a) * * *

4) Specification 104W, 111A60W1, or 1A100W (§§ 179.100, 179.101, 179.200, 179.201 of this subchapter). Tank cars which are authorized for inhibited ethylene imine only. Specification 111A60W1

tank cars must be insulated in accordance with § 179.200-4 of this subchapter.

9. In § 173.154, paragraph (a) (16) would be added to read as follows:

§ 173.154 Flammable solids and oxidizing materials not specifically provided for.

(a) * * *

(16) Specification 6D or 37M (non-reusable container) (§§ 178.102, 178.134 of this subchapter). Cylindrical steel overpacks with inside specification 2S, 2SL, or 2U (§§ 178.35, 178.35a, 178.24 of this subchapter) polyethylene packaging.

10. In § 173.163, paragraph (a) (9) would be added to read as follows:

§ 173.163 Chlorate of soda, chlorate of potash, and other chlorates.

(a) * * *

(9) Specification 56 (§§ 178.251, 178.252 of this subchapter). Metal portable tanks.

11. In § 173.208, paragraph (a) (2) would be added to read as follows:

§ 173.208 Titanium metal powder, wet or dry.

(a) * * *

(2) Any DOT specification full removable head steel drum authorized by § 173.154.

12. In § 173.217, the heading and paragraph (a) (5) would be revised; paragraph (a) (7) would be added to read as follows:

§ 173.217 Calcium hypochlorite mixtures, dry; Lithium hypochlorite compounds, dry; mono-(trichloro)-tetra-(monopotassium dichloro)-penta-s-triazinetriene, dry; Potassium dichloro-s-triazinetriene, dry; Sodium dichloro-s-triazinetriene, dry; Trichloro-s-triazinetriene, dry.

(a) * * *

(5) Specification 21C (§ 178.224 of this subchapter). Fiber drum which must be made with integral inner body ply having 0.003 inch minimum thickness aluminum facing and bottom interior having 0.001-inch minimum thickness aluminum facing. Cover of drum must be gasketed. Authorized net weight not over 400 pounds. Authorized for dry calcium hypochlorite mixtures only.

(7) Specification 12B (§ 178.205 of this subchapter). Fiberboard box with not more than two inside minimum 30-gauge thick steel pails containing not over 26 pounds net weight each. Each cover must be gasketed.

12. In § 173.223, paragraph (a) (5) would be revised to read as follows:

§ 173.223 Peracetic acid.

(a) * * *

(5) Specification 6D or 37M (non-reusable container) (§§ 178.102, 178.134 of this subchapter). Cylindrical steel overpacks with inside specification 2S or 2SL (§§ 178.35, 178.35a of this subchapter)

polyethylene packaging. Each package must have a vented closure which does not permit leakage of liquid contents under normal conditions of transportation.

13. In § 173.234, paragraph (a) (2) would be revised to read as follows:

§ 173.234 Sodium nitrite and sodium nitrite mixtures.

(a) * * *

(2) Specification 44C (§ 178.237 of this subchapter). Multiwall paper bag which must be constructed of heavy duty shipping sack Kraft paper or extensible Kraft paper, with a polyethylene inner sheet or coating having a minimum basis weight of 10 pounds. A four-ply bag with a minimum basis weight of 240 pounds is required for up to 100 pounds net weight except that a three-ply bag with a minimum basis weight of 180 pounds is authorized for not over 50 pounds net weight. All closures must be such as to provide a moisture resistant package for shipment.

14. In § 173.242, paragraphs (a) and (b) would be revised to read as follows:

§ 173.242 Bottles containing corrosive liquids.

(a) Bottles containing corrosive liquids, as defined by § 173.240, may not be packed in the same package with any other hazardous material, except as specifically provided in paragraphs (b) and (c) of this section and § 173.25, 173.257, 173.258, 173.259, 173.260, 173.261, or 173.286.

(b) Bottles containing corrosive liquids cushioned by incombustible, non-reactive, absorbent material and securely packed in tightly closed metal packaging, except hydrofluoric acid which must be over packed in a packaging other than one made of metal, may be packed with other hazardous materials. This exception does not apply to nitric acid exceeding 40 percent concentration, perchloric acid, hydrogen peroxide exceeding 52 percent strength by weight, nitrohydrochloric acid, or nitrohydrochloric acid diluted, which must not be packed in the same package with any other article under any circumstances.

15. In § 173.245, paragraph (a) (27) would be revised to read as follows:

§ 173.245 Corrosive liquids not specifically provided for.

(a) * * *

(27) Specification 33A (§ 178.150 of this subchapter). Polystyrene case (non-reusable container) with inside glass bottles not over 5 pints capacity each. Not more than four 5-pint bottles may be packed in one outside packaging.

16. In § 173.245a, the heading is revised and table in paragraph (a) is amended as follows:

§ 173.243a Corrosive liquids shipped in bulk.

Corrosive liquid	Authorized tank car	Authorized portable tank ¹
(change) Ethyl chloroethanol-formate.	-----	DOT-51, monel or monel clad.
(add) Vanadium oxytrichloride and titanium tetrachloride mixture.	-----	DOT-51

(Footnotes remain unchanged.)

17. In § 173.247, the heading and paragraph (a) (17) would be revised; paragraph (a) (2), (a) (18), and (a) (19) would be added to read as follows:

§ 173.247 Acetyl bromide; Acetyl chloride; Acetyl iodide; Antimony pentachloride; Benzoyl chloride; Boron trifluoride-acetic acid complex; Chromyl chloride; Dichloroacetyl chloride; Diphenylmethyl bromide solutions; Pyrosulfuryl chloride; Silicon chloride; Sulfur chloride (mono and di); Sulfuryl chloride; Thionyl chloride; Tin tetrachloride (anhydrous); Titanium tetrachloride; Trimethyl acetyl chloride.

(a) * * *

(2) Specification 6D (§ 178.102 of this subchapter). Cylindrical steel overpack with inside specification 2S or 2SL (§§ 178.35, 178.35a of this subchapter) polyethylene packaging. Polyethylene used must be Type III as set forth in Appendix B—Specifications For Plastics to Part 178 of this Title. Authorized only for sulfuryl chloride.

(17) Specification 4BA240 or 4BW240 (§§ 178.51, 178.61 of this subchapter). Cylinders authorized for titanium tetrachloride or tin tetrachloride, anhydrous, without any compressed gas. Safety relief devices are not authorized on cylinders containing tin tetrachloride.

(18) Specification 3E1800 (§ 178.42 of this subchapter). Cylinder authorized for titanium tetrachloride, anhydrous only.

(19) Specification 51 (§ 178.245 of this subchapter). Portable tank authorized for titanium tetrachloride, anhydrous only, without any compressed gas.

18. In § 173.247a, the heading and paragraph (a) (1) would be revised; paragraph (a) (3) would be added to read as follows:

§ 173.247a Vanadium tetrachloride and vanadium oxytrichloride.

(a) * * *

(1) Specifications 3A, 3AA, 4B240, 4BA240, 4BW240, and 3E1800 (§§ 178.36, 178.37, 178.50, 178.51, 178.61, 178.42 of this subchapter). Cylinders.

(3) Specification MC310, MC311, or MC312 (§ 178.343 of this subchapter). Tank motor vehicles. Authorized for vanadium oxytrichloride only, with an in-

ert non-soluble gas padding, adequate to exclude the presence of air. Specifications MC310 and MC311 cargo tanks must be in compliance with § 178.343-2 (b) or (c) as applicable, and §§ 178.340-9(a) and 178.343-4(a) of this subchapter.

19. In § 173.266, paragraph (b) (7) would be revised to read as follows:

§ 173.266 Hydrogen peroxide solution in water.

(b) * * *

(7) Specification 21P (§ 178.225 of this subchapter). Fiber drum overpack with inside specification 2U (§ 178.24 of this subchapter) polyethylene packaging, not over 15 gallons capacity, or specification 2SL (§ 178.35a of this subchapter) polyethylene packaging. The inside specification 2U and 2SL must be equipped with vented closures to prevent accumulation of internal pressure and the head with the closures must be marked "KEEP THIS END UP" or "KEEP PLUG UP TO PREVENT SPILLAGE".

20. In § 173.268, paragraph (b) (6) would be added; paragraph (f) (6) would be deleted as follows:

§ 173.268 Nitric acid.

(b) * * *

(6) Specification 33A (§ 178.150 of this subchapter). Polystyrene cases (nonreusable container) with inside glass bottles not over 5 pints capacity each. Not more than four 5-pint bottles may be packed in one package.

(f) * * *

(6) [Deleted]

21. In § 173.269, paragraph (a) (6) would be added to read as follows:

§ 173.269 Perchloric acid.

(a) * * *

(6) Specification 6D (§ 178.102 of this subchapter). Cylindrical steel overpack with inside Specification 2S (§ 178.35 of this subchapter) polyethylene packaging, not over 30-gallon capacity. Authorized for transportation only in a

transport vehicle assigned for sole use by one shipper and containing no other freight.

22. In § 173.299, paragraph (a) would be revised to read as follows:

§ 173.299 Etching acid liquid, n.o.s.

(a) * * *

(2) Specification 37M (§ 178.134 of this subchapter). Cylindrical steel overpack with inside specification 2S or (§§ 178.35, 178.35a of this subchapter) polyethylene container. Overpack 30-gallon capacity must be constructed of at least 20-gauge steel.

23. In § 173.302, paragraph (a) would be revised to read as follows:

§ 173.302 Charging of cylinders non-liquified compressed gases.

(a) * * *

(4) Specification 39 (§ 178.65 of subchapter) cylinder. For flammable gases, internal volume must not exceed 75 cubic inches. Aluminum cylinders not authorized for oxygen.

23. In § 173.304, the introductory of paragraph (a) (1) is revised and (2) Table is amended to read as follows:

§ 173.304 Charging of cylinders non-liquified compressed gas.

(a) * * *

(1) Specification 3, 3A, 3AA, 3B, 3D, 3E, 4, 4A, 4B, 4BA, 4B-ET, 4E, 9, 25, 26, 38, 39, 40, or (§§ 178.36, 178.37, 178.38, 178.39, 178.42, 178.48, 178.49, 178.50, 178.51 of this subchapter), except that no specification 4E, 9, 39, 40, or 41 packaging may be charged and shipped with a mixture containing a pyroforic liquid, carbonyl sulfide (disulfide), ethyl chloroethylene oxide, nickel carbonyl, spirit nitroglycerin, or poisonous material (Class A, B, or irritating material), less specifically authorized in this Part.

(2) * * *

¹ Use of existing cylinders authorized, new construction not authorized.

Kind of gas	Maximum permitted filling density (see note 1)	Containers marked as shown in this column the same type with higher service pressure must be used except as provided in § 173.3-9(b), § 173.301(d). (See notes following table.)
(change) Hydrogen chloride	65. Percent	DOT-3A1800; DOT-3AA1800; DOT-3AX DOT-3AAX1800; DOT-3; DOT-3T DOT-3E1800.
Liquefied nonflammable gases, liquid other than those classified as flammable, corrosive, or poisonous, and mixtures or solutions thereof, charged with nitrogen, carbon dioxide, or air. (See notes 7 and 8.)	Not liquid full at 130° F.	Specification packaging authorized in paragraph (a)(1) of this section and DOT-3HT; DOT-4D; DOT-4DA; DOT-4DS.
Sulfur hexafluoride	120. Percent	DOT-3A1000; DOT-3AA1000; DOT-3; DOT-3E1800.
Vinyl methyl ether. (See note 5.)	68. Percent	DOT-4B150, without brazed seams; DOT-4BA225, without brazed seams; DOT-4BV DOT-3A150; DOT-3AA150; DOT-3 DOT-25; DOT-3E1800.

(Notes remain unchanged.)

5. In § 173.314 paragraph (c), the Table is amended to read as follows:

§ 173.314 Requirements for compressed gases in tank cars.

(c) * * *

Kind of gas	Maximum permitted filling density, note 1	Required tank car, see § 173.31(a) (2) and (3)
(change)	Percent	
Vinyl methyl ether; note 2	68	ICC-103A1001, DOT-105A100W, Note.
	68	DOT-100A500X, Note 7.

(Notes remain unchanged.)

26. In § 173.338, the heading and the introductory text of paragraph (a) would be revised to read as follows:

§ 173.338 Nitrogen tetroxide-nitric oxide mixture containing up to 39.5 percent by weight nitric oxide.

(a) Nitrogen tetroxide-nitric oxide mixture containing up to 39.5 per cent by weight nitric oxide must be packed as follows:

27. In § 173.345, paragraph (a) (2) would be revised to read as follows:

§ 173.345 Exemptions for poisonous liquids, class B.

(a) * * *

(2) In glass or earthenware packagings not over 1 pint capacity each, or in metal or polyethylene packagings not over 1 quart capacity each, packed in a strong outside fiberboards box or molded expanded polystyrene case.

28. In § 173.348, paragraph (a) (4) would be added to read as follows:

§ 173.348 Arsenic acid.

(a) * * *

(4) Specification 21P (§ 178.225 of this subchapter). Fiber drum overpack with inside specification 2S, 2SL, or 2U (§§ 178.35, 178.35a, 178.24 of this subchapter) polyethylene packaging of not over 30-gallon capacity.

29. In § 173.353, the heading and the introductory text of paragraph (a) would be revised to read as follows:

§ 173.353 Methyl bromide, liquid (bromomethane); Mixtures of methyl bromide and ethylene dibromide, liquid; Mixtures of methyl bromide and chloropicrin, liquid; Methyl bromide, pressurized; Methyl bromide and chloropicrin mixture (containing not in excess of 2 percent chloropicrin), pressurized.

(a) Methyl bromide, liquid (bromomethane), mixtures of methyl bromide and ethylene dibromide, liquid, mixtures of methyl bromide and chloropicrin, liquid, or methyl bromide (including methyl bromide containing not more than 2 percent by weight of chloropicrin) pressurized with a nonflammable, nonliquefied compressed gas, must be packed as follows:

30. In § 173.354 paragraph (c) would be revised to read as follows:

§ 173.354 Motor fuel antiknock compound or tetraethyl lead.

(c) Steel tank conforming or equivalent to ASME specifications which contain solid or semisolid residual motor fuel antiknock compound (including rust, scale, or other contaminants) may be shipped by rail freight or highway. The tank must have been designed and constructed to be capable of withstanding full vacuum. All openings must be closed with gasketed blank flanges or vapor tight threaded closures. Each tank must be secured and braced to prevent movement under conditions normally incident to transportation.

31. In § 173.359, the heading would be revised; paragraph (a) (15) would be added to read as follows:

§ 173.359 Hexaethyl tetraphosphate mixtures, liquid; Methyl parathion mixtures, liquid; Organic phosphate compound mixtures, n.o.s., liquid; Parathion mixtures, liquid; Tetraethyl dithio pyrophosphate mixtures, liquid; Tetraethyl pyrophosphate mixtures, liquid.

(a) * * *

(15) Specification 37D (§ 178.137 of this subchapter). Nonreusable steel drum which must be of not less than 21-gauge wall and 20-gauge heads. Authorized only for methyl parathion mixtures, parathion mixtures, and organic phosphate compound mixtures, n.o.s. not exceeding a weight of 12 pounds per gallon.

32. In § 173.364, paragraph (a) (1) would be revised to read as follows:

§ 173.364 Exemptions for poisonous solids, class B.

(a) * * *

(1) In inside glass, earthenware, or composition bottles or jars, or metal packagings, or lock-corner sliding-lid wooden boxes, of not over 5 pounds capacity each; or inside chipboard, pasteboard, or fiber cartons, cans, boxes, or tightly closed strong plastic bags or bottles compatible with product of not over 1 pound capacity each, packed in an outside wooden or fiberboard box, or wooden barrel or keg, or molded expanded polystyrene case. Net weight of contents of outside container may not exceed 100 pounds.

33. In § 173.365, paragraph (a) (2) would be revised to read as follows:

§ 173.365 Poisonous solids not specifically provided for.

(a) * * *

(2) Specification 17E, 17H, 37A, or 37B (§§ 178.116, 178.118, 178.131, 178.132 of this subchapter). Metal drums (single-trip). Gross weight not over 460 pounds except for material fused solid in the drum a gross weight of up to 880 pounds is authorized and for waste material containing arsenic trioxide a gross weight of up to 550 pounds is authorized, in drums constructed of at least 22-gauge steel regardless of gross weight marking embossed on the drum.

34. In § 173.377, the heading, introductory text of paragraph (g), and paragraph (g) (1) would be revised to read as follows:

§ 173.377 Hexaethyl tetraphosphate mixtures, dry; Methyl parathion mixtures, dry; Organic phosphate compound mixtures, n.o.s., dry; Parathion mixtures, dry; Tetraethyl dithio pyrophosphate mixtures, dry; Tetraethyl pyrophosphate mixtures, dry.

(g) Dry mixtures containing more than 2 percent but not over 16.5 percent by weight of hexaethyl tetraphosphate, methyl parathion, organic phosphate compound mixtures, n.o.s., parathion, tetraethyl dithio pyrophosphate, or tetraethyl pyrophosphate, and in which the liquid is absorbed in an inert material, in addition to packagings prescribed in paragraphs (a) and (b) of this section, may be packed in specification packaging as follows:

(1) Specification 44B (§ 178.236 of this subchapter). Multiwall paper bags with inside paper bags, specification 2D (§ 178.23 of this subchapter), not over 10 pounds capacity each. Net weight of material in outside packaging may not exceed 50 pounds. Specification 2D bags over 5 pounds capacity or outside packaging over 30 pounds net weight not authorized for shipment by water.

PART 174—CARRIERS BY RAIL FREIGHT

In § 174.532, paragraph (b) (3) would be revised to read as follows:

§ 174.532 Loading other hazardous materials.

(b) * * *

(3) Cylinders containing pyroforic liquids, n.o.s., unless packed in a box or case, must be loaded with all valves and safety relief devices in the vapor space. All cylinders must be secured so that no shifting may occur in transit.

PART 177—SHIPMENTS MADE BY WAY OF COMMON, CONTRACT, OR PRIVATE CARRIERS BY PUBLIC HIGHWAY

In § 177.837, paragraph (d) would be revised to read as follows:

§ 177.837 Flammable liquids.

(d) Cylinders containing pyroforic liquids, n.o.s., unless packed in a box or case, must be loaded with all valves and safety relief devices in the vapor space. All cylinders must be secured so that no shifting may occur in transit.

PART 178—SHIPPING CONTAINER SPECIFICATIONS

1. In Part 178 Table of Contents, §§ 178.35 and 178.35a would be revised to read as follows:

- Sec.
178.35 Specification 2S; polyethylene packaging.
178.35a Specification 2SL; molded or thermofomed polyethylene packaging.

2. In § 178.35-2 the heading and paragraph (a) would be revised; Note 1 would be deleted as follows:

§ 178.35-2 Material requirements.

(a) Packaging must be made of Type I polyethylene as described in Appendix B to this Part except the melt index may be 2.6 maximum. Other materials may be added provided they do not affect adversely the properties covered by Appendix B. When required by Part 173 of this subchapter, packaging must be made of Type II or III polyethylene as specified.

NOTE 1: [Deleted]

3. In § 178.35a-1 the heading and paragraph (a) would be revised; Note 1 would be deleted as follows:

§ 178.35a-1 Material requirements.

(a) Packaging must be made of Type I polyethylene as described in Appendix B to this Part except the melt index may be 2.6 maximum. Other materials may be added provided they do not affect adversely the properties covered by Appendix B. When required by Part 173 of this subchapter, packaging must be made of Type II or III polyethylene as specified.

NOTE 1: [Deleted]

4. In the following sections, paragraph (b) would be deleted:

§ 178.80-7	§ 178.102-2
§ 178.81-7	§ 178.115-6
§ 178.82-7	§ 178.116-6
§ 178.83-7	§ 178.117-7
§ 178.84-7	§ 178.118-6
§ 178.87-7	§ 178.130-5
§ 178.91-7	§ 178.131-6
§ 178.97-5	§ 178.132-6
§ 178.98-5	§ 178.133-5
§ 178.99-5	§ 178.134-2
§ 178.100-5	§ 178.135-5
§ 178.101-5	

5. In the following sections under the columns entitled "Rolling hoops" and "Size (gauge or inch)," the dimension "1 x 1½" would be changed to read "¾ x 1¼" wherever it appears:

§ 178.81-7	§ 178.90-6
§ 178.83-7	§ 178.91-7
§ 178.84-7	§ 178.97-5
§ 178.87-7	§ 178.98-5
§ 178.88-6	§ 178.99-5

§ 178.107-6 [Amended]

6. In § 178.107-6(a), in the third column of the table, the dimension "1 x 1½" would be changed to read "¾ x 1¼."

§ 178.108-6 [Amended]

7. In § 178.108-6(a), in the fourth column of the table, the dimension "1 x 1½" would be changed to read "¾ x 1¼."

§ 178.109-6 [Amended]

8. In § 178.109-6(a), in the third column of the table, the dimension "1 x 1½" would be changed to read "¾ x 1¼."

9. Paragraph (c)(5) would be in § 178.205-14.

§ 178.205-14 Flap closures.

(c) * * *
(5) A gap not over one-inch wide between inner flaps if inside packaging to consist of rectangular metal cans.

10. In § 178.205-16(a) the text amended and footnote 5 added.

§ 178.205-16 Authorized gross and parts required.

(a) * * *

Authorized gross weight (pounds)	Strength of fiberboard (minimum) Mullen or Cady test					
	Solid board			Double faced corrugated		Double wall corr.
	Box	Lining ¹	Heads ¹	Box	Lining ¹	Box
(charge)						
40 *	275		350	275 200	175	200

* 45 pounds gross weight authorized when inside packaging consists of rectangular metal cans.

11. In § 178.205-18, subparagraph (1) (i) is added to read as follows:

§ 178.205-18 Marking.

(a) * * *
(1) * * *
(i) Authorized gross weight must be followed by the letter "C" when box is unit authorized under § 178.205-14(c) (5) or note 5 in § 178.205-16, e.g., 12B45C.

12. Paragraph (a) of § 178.237-3 would be revised to read as follows:

§ 178.237-3 Construction.

(a) Bags must be at least 4 thicknesses of paper unless otherwise specified in Part 173 of this subchapter; this must be heavy duty shipping sack kraft paper conforming to the requirements of § 178.237-2 paragraphs (a) and (b), or equivalent, with a minimum total basis weight of 250 pounds of paper (500 sheets, 24 inches x 36 inches). Outer sheet must be of water resistant stock and at least 60 pounds basis weight, inner sheets not less than 40 pounds basis weight. Bags to be of sewn, sift-proof bottom construction. Other bottoms of equal efficiency authorized.

Interested persons are invited to give their views on these proposals. Communications should identify the docket number and be submitted in duplicate to the Secretary, Hazardous Materials Regulations Board, Department of Transportation, Washington, D.C. 20590. Except for the proposed changes relating to I-bars on steel drums, communications received on or before January 21, 1975, will be considered before final action is taken on these proposals. Communications relating to the proposed I-bar changes must be received on or before November

12, 1974. All comments received available for examination by interested persons at the Office of the Secretary, Hazardous Materials Regulations, room 6215 Trans Point Building, E and V Streets SW., Washington, both before and after the closing date of comments.

AUTHORITY: Transportation of Explosive Act (18 U.S.C. 831-835), sec. 6 of the Department of Transportation Act (49 U.S.C. Title VI and sec. 902(h) of the Federal Aviation Act of 1958 (49 U.S.C. 1421-1472(h), and 1655(c)).

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Office of Hazardous Materials

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